



**GROUNDWATER REMEDIATION  
COMPLIANCE DEMONSTRATION  
MONITORING REPORT  
SECOND QUARTER, 2004**

**Conservation Finance Corporation  
c/o Southern California Edison Company  
Visalia Pole Yard Project**

 **Krazan** & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING  
CONSTRUCTION TESTING & INSPECTION



**GROUNDWATER REMEDIATION  
COMPLIANCE DEMONSTRATION  
MONITORING REPORT  
SECOND QUARTER, 2004**

**Conservation Finance Corporation  
c/o Southern California Edison Company  
Visalia Pole Yard Project  
Visalia, California**

**Technical Report**

**VOLUME I**

Project No. 014-01011  
October 5, 2004

Prepared for:  
Conservation Finance Corporation  
c/o Southern California Edison Company  
Attn: Mr. Randy Weidner  
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 **Krazan** & ASSOCIATES, INC.  
SITE DEVELOPMENT ENGINEERS



SOUTHERN CALIFORNIA  
**EDISON**

An EDISON INTERNATIONAL<sup>®</sup> Company

October 8, 2004

Mr. Emmanuel Mensah  
Waste Management Engineer  
California Environmental Protection Agency  
Department of Toxic Substances Control  
8800 Cal Center Drive  
Sacramento, CA 95826-3200

SUBJECT: Quarterly Ground Water Monitoring Report, SCE Visalia Pole Yard

Dear Mr. Mensah,

Enclosed are one hard copy and one CD copy of the Ground Water Monitoring Report for the Second Quarter of 2004. The report details the ground water monitoring activities at the facility for the three-month period.

If you have any questions, I can be reached at (626) 302-4033.

Sincerely,

A handwritten signature in cursive script that reads "Randy Weidner".

Randall S. Weidner

Enclosures

cc:

Ms. Shea Jones, EPA, Region IX

Dr. Eva Davis, EPA, R. S. Kerr Env. Research Center

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Project No. 014-01011

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**GROUNDWATER REMEDIATION  
COMPLIANCE DEMONSTRATION  
MONITORING REPORT  
SECOND QUARTER, 2004  
CONSERVATION FINANCE CORPORATION  
c/o SOUTHERN CALIFORNIA EDISON COMPANY  
VISALIA POLE YARD**

**INTRODUCTION**

This quarterly report discusses the findings and observations of the groundwater remediation compliance demonstration program at the Southern California Edison (SCE) Visalia Pole Yard. The information presented herewith is part of a continuing effort to document the effectiveness of the previously conducted groundwater remediation project at the site.

**Monitoring Wells, Sample Locations, and Sampling Schedule**

The present monitoring well network is shown in Figure No. 1. Monitoring well construction details for all wells are shown in Table 1. In addition to the samples taken from the monitoring well network, water samples are also collected for analysis from one other area;

- The on-site SCE water treatment plant

This location is only sampled when the treatment plant has discharged water. Sample locations are shown on Figure No. 2. No water was discharged from the plant during the reporting period.

**Groundwater Elevations**

Groundwater levels were recorded in accordance with the schedule shown in Table 2. The results of these measurements are shown in Table 3. Groundwater levels were measured relative to surveyed reference points by means of an electric depth sounder and recorded to an accuracy of 0.01 feet. A hydrograph of water levels in selected intermediate aquifer monitoring wells is shown in Figure 3. A hydrograph of water levels in selected deep aquifer monitoring wells is shown in Figure 4. Figure 5 is a contour map of

the potentiometric surface for the intermediate aquifer at the end of the second quarter, 2004. Figure 6 represents the deep aquifer potentiometric surface at the end of the second quarter, 2004.

#### **Pentachlorophenol, Creosote and Diesel Sampling**

During the second quarter of 2004, monitoring wells were sampled in accordance with the schedule presented in Table 2. These results are presented in Table 4. There was no discharge from the SCE water treatment plant this quarter therefore raw influent (T1) and final effluent (T4), were not analyzed.

The laboratory analytical procedures used during this quarter were EPA Method 525.2 for pentachlorophenol and creosote; and EPA Method 8015M to detect TPH-D. These analyses were performed by Calscience Environmental Laboratories of Garden Grove, California.

For current analytical purposes, this report will utilize the definition of creosote that consists of the following nine chemical compounds:

- |                      |               |
|----------------------|---------------|
| •Naphthalene         | •Fluorene     |
| •1-Methylnaphthalene | •Phenanthrene |
| •2-Methylnaphthalene | •Fluoranthene |
| •Acenaphthene        | •Pyrene       |
| •Anthracene          |               |

The concentration of creosote listed in the attached tables and analytical reports represents the summation of the concentrations of the above individual compounds.

#### **Iron, Ferric Iron and Iron (II) Sampling**

The ground water from monitoring wells was tested for iron and ferric iron by EPA Method 6010B, and iron (II) by Standard Method SM3500-FeD in accordance with the schedule in Table 2. Chemical analyses were performed by Calscience Environmental Laboratories of Garden Grove, California. The results of the iron, ferric iron, and iron (II) analyses have been summarized in Table 5A of this report.

#### **Nitrite, Nitrate and Methane Sampling**

The ground water from monitoring wells was tested for nitrites and nitrates by EPA Method 300.0 and methane by method RSK-175M in accordance with the schedule in Table 2. Chemical analyses were performed by Calscience Environmental Laboratories of Garden Grove, California. The results of the nitrites, nitrates, and methane analyses have been summarized in Table 5B of this report.

### **Sulfate, Hydrogen Sulfide and Total Sulfide Sampling**

The ground water from monitoring wells was tested for sulfate by EPA Method 300.0, hydrogen sulfide by HACH Model HS-C and total sulfides by EPA Method 376.2, in accordance with the schedule in Table 2. Chemical analyses were performed by Calscience Environmental Laboratories of Garden Grove, California. The results of the sulfate, hydrogen sulfide, and total sulfide analyses have been summarized in Table 5C of this report.

### **Dioxin and Furan Sampling**

The ground water from monitoring wells was tested for dioxins and furans by EPA Method 8280 in accordance with the schedule in Table 2. Chemical analyses were performed by Severn Trent Services of West Sacramento, California. The results of the dioxin and furan analyses have been summarized in Table 6A and 6B of this report.

## **SUMMARY OF FINDINGS**

### **Groundwater Elevations**

Recent groundwater level trends in the intermediate and deep aquifers are presented in Figures 3 and 4. On average, the intermediate aquifer water level decreased 1.53 feet from the first quarter 2004 to the second quarter of 2004. On average, the deep aquifer water level decreased 4.32 feet from the first quarter 2004 to the second quarter of 2004.

At the end of the second quarter, 2004, the regional hydraulic gradient for the intermediate aquifer is approximately 9.26 feet per mile (0.0018 feet per foot).

The average hydraulic gradient for the deep aquifer is approximately 17.03 feet per mile (0.0032 feet per foot) for the second quarter 2004.

### **Pentachlorophenol, Creosote, and Diesel**

Creosote, and Diesel were detected in the on-site deep aquifer monitoring well S-9D and the on-site intermediate aquifer wells S-11I, S-14I, and S-15I. Creosote was detected in the on-site intermediate aquifer monitoring well VDMW-3. Diesel was detected in the on-site deep aquifer monitoring well S-15D.

Please refer to Figures 7 and 8 for recent trends in pentachlorophenol and creosote concentrations, respectively, in the monitoring wells.

**Iron, Ferric Iron and Iron (II)**

Iron and ferric iron were detected in the on-site intermediate aquifer monitoring wells S-11I, S-14I, and S-15I, and the on-site deep aquifer wells S-15D and VDMW-4. Iron and ferric iron were detected in the off-site intermediate aquifer monitoring wells MW-25, and MW-37, and in the off-site deep aquifer wells MW-38 and MW-40. No monitoring wells contained detectable concentrations of iron (II) during the second quarter of 2004.

**Nitrite, Nitrate and Methane**

Nitrite was detected in the on-site intermediate aquifer monitoring wells S-7I, S-11I, S-14I, S-15I, and VDMW-3. Nitrite was detected off-site only in intermediate monitoring well MW-25. Nitrate was detected in all on-site intermediate and deep aquifer monitoring wells that were sampled this quarter. Methane was detected in the on-site intermediate aquifer monitoring wells S-14I, VDMW-2, and VDMW-3, as well as the off-site monitoring well MW-25.

**Sulfate, Hydrogen Sulfide and Total Sulfide**

Sulfate was detected in all intermediate and deep aquifer monitoring wells sampled this quarter. No monitoring wells contained detectable concentrations of hydrogen sulfide or total sulfide during the second quarter of 2004.

**Dioxins and Furans**

Intermediate aquifer monitoring well S-15I contained detectable concentrations of dioxins this quarter. No monitoring wells contained detectable concentrations of furans this quarter. Please refer to Figure 9 for recent trends in octa-dioxin concentrations in monitoring wells.

**QUALITY ASSURANCE/QUALITY CONTROL PROGRAM**

A quality assurance quality control (QA/QC) program for SCE Visalia Pole Yard activities was in effect during the second quarter, 2004. This program addresses project administration, data review, sampling schedules, water level measurement protocol, surface and groundwater sampling methods, and sample quality assurance. Details of the sample quality assurance program are discussed in a previous report (Third Quarter, 1996).

**Laboratory QA/QC Programs**

The results of the individual laboratory QA/QC programs suggest their analytical data is accurate within the limits of the methods used. Please refer to QA/QC portions of the analytical reports in Volumes II and III for more detailed information on the individual laboratory QA/QC programs.



**Krazan & Associates, Inc. QA/QC Program**

Sample quality assurance was also provided by Krazan & Associates personnel through the inclusion of regular trip blanks, hidden field blanks, and hidden field duplicates into the sample stream. Data for the Krazan-initiated QA/QC blank and duplicate samples are presented in Tables 7A and 7B.

The Relative Percent Difference (RPD) in detectable concentrations for duplicate samples submitted during the second quarter, 2004 was used as a measure of analytical precision. The RPD is defined in previous reports.

One field duplicate sample was analyzed for pentachlorophenol, creosote, and diesel [TPH(D)] this quarter. No pentachlorophenol, creosote, and diesel were detected in the field duplicate sample. The RPD for the Pentachlorophenol, creosote, and diesel duplicate are as follows:

Well No.	Date	Pentachlorophenol	Creosote	TPH(D)
MW-38	7/29/04	ND	ND	ND

One field duplicate sample was analyzed for dioxins and furans this quarter. No dioxins or furans were detected in the duplicate sample. The RPD for the dioxin and furan duplicates are as follows:

Well No.	Date	Hepta-	Octa-	Tetra-	Hepta-	Octa-
MW-38	7/29/04	ND	ND	ND	ND	ND

ND = Not detected

Strict chain of custody procedures have been followed as an integral part of the QA/QC program. Upon transfer of samples from one individual to another, excluding transfer involving the shipper, the date, time and relinquishing and/or receiving signature(s) are required. Copies of the chain of custody forms which accompanied the second quarter samples may be found in the associated laboratory analytical reports (Volumes II and III).

**LIMITATIONS**

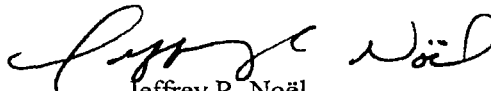
The findings presented in this report were based on field and laboratory investigations, therefore the data are accurate only to the degree implied by review of the data obtained and by professional interpretation. The monitoring well locations were located in the field by measurement and existing landmarks in conjunction with the topographic surveys conducted by Knopf and Associates of Visalia, California and by Southern California Edison Company. Monitoring well elevations should be considered accurate only to the degree implied by the method used to locate them.

Chemical testing was conducted by laboratories certified by the California EPA Department of Toxic Substances Control. The results of chemical testing are accurate only to the degree of the care of insuring the testing accuracy and the representative nature of the samples obtained.

The findings presented herewith are on professional interpretation using state of the art methods and equipment, and a degree of conservatism deemed proper as of this report date. It is not warranted that such data cannot be superseded by future geotechnical, environmental, or technical developments.

If there are any questions or if we can be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,  
KRAZAN & ASSOCIATES, INC.



Jeffrey R. Noël  
Project Manager

JRN/awf

7c: herewith for distribution by the client

*Tables*

**Table No. 1**  
**Description of Monitoring Wells**  
**SCE Visalia Pole Yard and Vicinity**

<b>Well No.</b>	<b>Date Completed</b>	<b>Well Depth (ft)</b>	<b>Well Diameter (in)</b>	<b>Perforated Interval</b>	<b>Reference Pt. Elevation</b>
MW-25	11/14/80	96	8	63 - 96	335.92
MW-35	02/19/90	103.2	4	80-100	334.47
MW-37	02/14/90	103	4	80-100	337.53
MW-38	03/01/90	152	4	127-147	336.57
MW-39	02/22/90	104	4	83-103	334.70
MW-40	03/12/91	150	4	130-150	335.32
MW-47	02/19/90	104	4	81-101	333.44
MW-49	02/20/90	102	4	78-98	333.94
S-4I	05/15/96	110	4	80-110	337.78
S-7I	05/23/96	100	4	80-100	337.67
S-11I	05/21/96	102	2	82-102	338.14
S-14I	06/14/96	115	8	80-100 110-115	335.33
S-15I	05/24/96	115	8	80-100 110-115	334.19
S-9D	09/30/98	145	8	125-145	338.14
S-14D	09/23/98	145	8	125-145	336.93
S-15D	09/27/98	145	8	125-145	337.34
VDMW-1	07/08/03	92.5	4	87.5-92.5	332.87
VDMW-2	07/09/03	92.5	4	87.5-92.5	332.22
VDMW-3	07/10/03	92.5	4	87.5-92.5	333.07
VDMW-4	04/27/04	132.5	4	127.5-132.5	333.79

**Table No. 2**  
**Sampling Schedule**  
**SCE Visalia Pole Yard and Vicinity**

Sample Location	Description	Sample Analyte or Other Test	
		Compliance Sampling	Depth(Ft)
MW-25	1 Intermed. Mon. Well	Q	M
MW-35	1 Intermed. Mon. Well	-	M
MW-37	1 Intermed. Mon. Well	Q	M
MW-38	1 Deep Mon. Well	Q	M
MW-39	1 Intermed. Mon. Well	-	M
MW-40	1 Deep Mon. Well	Q	M
MW-47	1 Intermed. Mon. Well	-	M
MW-49	1 Intermed. Mon. Well	-	M
S-4I	1 Intermed. Mon. Well	Q	M
S-7I	1 Intermed. Mon. Well	Q	M
S-11I	1 Intermed. Mon. Well	Q	M
S-14I	1 Intermed. Mon. Well	Q	M
S-15I	1 Intermed. Mon. Well	Q	M
S-9D	1 Deep Mon. Well	Q	M
S-14D	1 Deep Mon. Well	Q	M
S-15D	1 Deep Mon. Well	Q	M
VDMW-1	1 Intermed. Mon. Well	Q	M
VDMW-2	1 Intermed. Mon. Well	Q	M
VDMW-3	1 Intermed. Mon. Well	Q	M
VDMW-4	1 Deep Mon. Well	Q	M

WTP = SCE Water Treatment Plant

- Not sampled for this analyte

1 Dedicated elec. sub. pump well

2 Non-dedicated elec. sub pump or bailed well

SAMPLING INTERVAL DESIGNATION

M = Monthly

Q = Quarterly

Compliance Program Analyte List

Pentachlorophenol / Creosote / Tph-diesel

Dioxins / Furans

Iron / Iron (II) / Ferric Iron

Nitrite / Nitrate / Methane

Sulfate / Hydrogen Sulfide / Total Sulfide

**Table No. 3**  
**Water Level Elevations at Monitoring Wells**  
**SCE Visalia Pole Yard**  
**2nd Quarter, 2004**

Well No.	Reference Point Elev. (ft)	Date Measured	Depth to Water (ft)	Static Water Level Elev. (ft)
MW-25	335.86	04/26/04	78.99	256.87
		07/06/04	81.48	254.38
MW-35	334.47	04/26/04	80.70	253.77
		07/06/04	82.79	251.68
MW-37	337.53	04/26/04	83.03	254.50
		07/06/04	85.24	252.29
MW-38	336.57	04/26/04	84.47	252.10
		07/06/04	87.39	249.18
MW-39	334.70	04/26/04	79.38	255.32
		07/06/04	81.85	252.85
MW-40	335.32	04/26/04	80.90	254.42
		07/06/04	83.75	251.57
MW-47	333.44	04/26/04	78.20	255.24
		07/06/04	80.61	252.83
MW-49	333.94	04/26/04	79.60	254.34
		07/06/04	81.96	251.98
S-4I	337.78	04/26/04	NS	
		07/06/04	84.29	253.49
S-7I	337.67	04/26/04	NS	
		07/06/04	84.52	253.15
S-11I	338.14	04/26/04	NS	
		07/06/04	84.98	253.16
S-14I	335.33	04/26/04	NS	
		07/06/04	83.70	251.63
S-15I	334.19	04/26/04	81.12	253.07
		07/06/04	83.56	250.63
S-9D	337.39	04/26/04	83.88	253.51
		07/06/04	86.78	250.61
S-14D	336.93	04/26/04	82.93	254.00
		07/06/04	85.81	251.12

continued

*Table No. 3 (continued)*  
**Water Level Elevations at Monitoring Wells**  
**SCE Visalia Pole Yard**  
**2nd Quarter, 2004**

<b>Well No.</b>	<b>Reference Point Elev. (ft)</b>	<b>Date Measured</b>	<b>Depth to Water (ft)</b>	<b>Static Water Level Elev. (ft)</b>
S-15D	337.34	04/26/04	83.67	253.67
		07/06/04	86.56	250.78
VDMW-1	332.87	04/26/04	77.69	255.18
		07/06/04	80.05	252.82
VDMW-2	332.22	04/26/04	77.05	255.17
		07/06/04	79.42	252.80
VDMW-3	333.07	04/26/04	77.69	255.38
		07/06/04	80.11	252.96
VDMW-4	333.79	04/26/04	NS	
		07/06/04	80.81	252.98

NS - Not Sounded.

@ Difficulty in gaining accurate depth measurement

**Table No. 4**  
**Pentachlorophenol, Creosote and Diesel Concentrations**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Location	Date Sampled	Laboratory Work & Sample No.	Penta (mg/l)	Creosote (mg/l)	TPH-Diesel (mg/l)
MW-25	07/29/04	04-07-1593-14	ND(0.001)	ND(0.001)	ND(0.05)
MW-37	07/29/04	04-07-1593-15	ND(0.001)	ND(0.001)	ND(0.05)
MW-38	07/29/04	04-07-1593-8	ND(0.001)	ND(0.001)	ND(0.05)
MW-40	07/29/04	04-07-1593-13	ND(0.001)	ND(0.001)	ND(0.05)
S-4I	07/29/04	04-07-1593-6	ND(0.001)	ND(0.001)	ND(0.05)
S-7I	07/29/04	04-07-1593-7	ND(0.001)	ND(0.001)	ND(0.05)
S-11I	07/29/04	04-07-1593-9	ND(0.001)	0.00081J	0.0890
S-14I	07/29/04	04-07-1593-10	ND(0.001)	0.7366J	1.8000
S-15I	07/29/04	04-07-1593-11	ND(0.001)	0.09598J	0.3400
S-9D	07/29/04	04-07-1593-5	ND(0.001)	0.01257J	0.0570
S-14D	NS	---	---	---	---
S-15D	07/29/04	04-07-1593-12	ND(0.001)	ND(0.001)	0.1800
VDMW-1	07/29/04	04-07-1593-1	ND(0.001)	ND(0.001)	ND(0.05)
VDMW-2	07/29/04	04-07-1593-2	ND(0.001)	ND(0.001)	ND(0.05)
VDMW-3	07/29/04	04-07-1593-3	ND(0.001)	0.00031J	ND(0.05)
VDMW-4	07/29/04	04-07-1593-4	ND(0.001)	ND(0.001)	ND(0.05)
D	The sample data was reported from a diluted analysis				
J	Result is detected below the reporting limit or is an estimated concentration				
E	Concentration exceeds calibration range				
ND (xx)	None Detected (detection limit).				
---	Not analyzed for this compound				
NS	Well not sampled				



Table No. 5A  
Iron, Ferric Iron, Iron (II)  
SCE Visalia Pole Yard and Vicinity  
2nd Quarter, 2004

Sample Location	Date Sampled	Laboratory Work & Sample No.	Iron (mg/l)	Ferric Iron (mg/l)	Iron (II) (mg/l)
MW-25	07/08/04	04-07-0430-3	8.07	8.07	ND(0.10)
MW-37	07/08/04	04-07-0430-7	0.247	0.247	ND(0.10)
MW-38	07/08/04	04-07-0430-5	0.146	0.146	ND(0.10)
MW-40	07/08/04	04-07-0430-4	0.225	0.225	ND(0.10)
S-4I	07/07/04	04-07-0334-5	ND(0.100)	ND(0.100)	ND(0.10)
S-7I	07/07/04	04-07-0334-6	ND(0.100)	ND(0.100)	ND(0.10)
S-11I	07/07/04	04-07-0334-8	0.177	0.177	ND(0.10)
S-14I	07/08/04	04-07-0430-8	5.14	5.14	ND(0.10)
S-15I	07/08/04	04-07-0430-1	3.44	3.44	ND(0.10)
S-9D	07/07/04	04-07-0334-7	ND(0.100)	ND(0.100)	ND(0.10)
S-14D	NS	---	---	---	---
S-15D	07/08/04	04-07-0430-2	0.582	0.582	ND(0.10)
VDMW-1	07/07/04	04-07-0334-1	ND(0.100)	ND(0.100)	ND(0.10)
VDMW-2	07/07/04	04-07-0334-2	ND(0.100)	ND(0.100)	ND(0.10)
VDMW-3	07/07/04	04-07-0334-3	ND(0.100)	ND(0.100)	ND(0.10)
VDMW-4	07/07/04	04-07-0334-4	0.112	0.112	ND(0.10)
ND (xx)	None Detected (detection limit).				
---	Not analyzed for this compound				
NS	Well not sampled				

**Table No. 5B**  
**Nitrite, Nitrate, Methane**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Location	Date Sampled	Laboratory Work & Sample No.	Nitrite (mg/l)	Nitrate (mg/l)	Methane (mg/l)
MW-25	07/08/04	04-07-0430-3	1.5	5.2	0.0128
MW-37	07/08/04	04-07-0430-7	ND(0.10)	15	ND(0.001)
MW-38	07/08/04	04-07-0430-5	ND(0.10)	2.1	ND(0.001)
MW-40	07/08/04	04-07-0430-4	ND(0.10)	6.2	ND(0.001)
S-4I	07/07/04	04-07-0334-5	ND(0.10)	12	ND(0.001)
S-7I	07/07/04	04-07-0334-6	1.2	10	ND(0.001)
S-11I	07/07/04	04-07-0334-8	1.4	7.7	ND(0.001)
S-14I	07/08/04	04-07-0430-8	0.24	1.1	0.00418
S-15I	07/08/04	04-07-0430-1	1.7	6.9	ND(0.001)
S-9D	07/07/04	04-07-0334-7	ND(0.10)	5.0	ND(0.001)
S-14D	NS	---	---	---	---
S-15D	07/08/04	04-07-0430-2	ND(0.10)	4.8	ND(0.001)
VDMW-1	07/07/04	04-07-0334-1	ND(0.10)	8.9	ND(0.001)
VDMW-2	07/07/04	04-07-0334-2	ND(0.10)	9.2	0.00689
VDMW-3	07/07/04	04-07-0334-3	0.74	7.0	0.00449
VDMW-4	07/07/04	04-07-0334-4	ND(0.10)	4.5	ND(0.001)
ND (xx)	None Detected (detection limit).				
---	Not analyzed for this compound				
NS	Well not sampled				

**Table No. 5C**  
**Hydrogen Sulfide, Sulfate, Total Sulfide,**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Location	Date Sampled	Laboratory Work & Sample No.	Hydrogen Sulfide (mg/l)	Sulfate (mg/l)	Total Sulfide (mg/l)
MW-25	07/08/04	04-07-0430-3	ND(0.10)	33	ND(0.05)
MW-37	07/08/04	04-07-0430-7	ND(0.10)	24	ND(0.05)
MW-38	07/08/04	04-07-0430-5	ND(0.10)	11	ND(0.05)
MW-40	07/08/04	04-07-0430-4	ND(0.10)	18	ND(0.05)
S-4I	07/07/04	04-07-0334-5	ND(0.10)	50	ND(0.05)
S-7I	07/07/04	04-07-0334-6	ND(0.10)	48	ND(0.05)
S-11I	07/07/04	04-07-0334-8	ND(0.10)	46	ND(0.05)
S-14I	07/08/04	04-07-0430-8	ND(0.10)	59	ND(0.05)
S-15I	07/08/04	04-07-0430-1	ND(0.10)	50	ND(0.05)
S-9D	07/07/04	04-07-0334-7	ND(0.10)	22	ND(0.05)
S-14D	NS	---	---	---	---
S-15D	07/08/04	04-07-0430-2	ND(0.10)	16	ND(0.05)
VDMW-1	07/07/04	04-07-0334-1	ND(0.10)	55	ND(0.05)
VDMW-2	07/07/04	04-07-0334-2	ND(0.10)	46	ND(0.05)
VDMW-3	07/07/04	04-07-0334-3	ND(0.10)	51	ND(0.05)
VDMW-4	07/07/04	04-07-0334-4	ND(0.10)	24	ND(0.05)
ND (xx)	None Detected (detection limit).				
---	Not analyzed for this compound				
NS	Well not sampled				

**Table No. 6A**  
**Dioxin Concentrations in Ground-Water Wells\***  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Location	Lab ID	Date Sampled	Tetra (ng/l)	Penta (ng/l)	Hexa (ng/l)	Hepta (ng/l)	Octa (ng/l)
MW-25	G4G090356-003	07/08/04	ND(0.028)	ND(0.41)	ND(0.069)	ND(0.075)	ND(0.078)
MW-37	G4G090356-007	07/08/04	ND(0.038)	ND(0.099)	ND(0.087)	ND(0.090)	ND(0.24)
MW-38	G4G090356-005	07/08/04	ND(0.058)	ND(0.11)	ND(0.081)	ND(0.058)	ND(0.17)
MW-40	G4G090356-004	07/08/04	ND(0.057)	ND(0.11)	ND(0.082)	ND(0.076)	ND(0.20)
S-4I	G4G080266-001	07/07/04	ND(0.032)	ND(0.068)	ND(0.077)	ND(0.074)	ND(0.12)
S-7I	G4G080266-002	07/07/04	ND(0.040)	ND(0.092)	ND(0.076)	ND(0.047)	ND(0.20)
S-11I	G4G080266-004	07/07/04	ND(0.044)	ND(0.077)	ND(0.074)	ND(0.088)	ND(0.18)
S-14I	G4G090356-008	07/08/04	ND(0.036)	ND(0.077)	ND(0.055)	ND(1.0)	ND(4.0)
S-15I	G4G090356-001	07/08/04	ND(0.098)	ND(0.20)	ND(0.73)	29	83
S-9D	G4G080266-003	07/07/04	ND(0.033)	ND(0.057)	ND(0.070)	ND(0.74)	ND(2.2)
S-14D	NS	---	---	---	---	---	---
S-15D	G4G090356-002	07/08/04	ND(0.044)	ND(0.050)	ND(0.080)	ND(0.44)	ND(1.9)
VDMW-1	G4G080266-005	07/07/04	ND(0.033)	ND(0.089)	ND(0.040)	ND(0.053)	ND(0.12)
VDMW-2	G4G080266-006	07/07/04	ND(0.049)	ND(0.091)	ND(0.060)	ND(0.060)	ND(0.12)
VDMW-3	G4G080266-007	07/07/04	ND(0.030)	ND(0.072)	ND(0.070)	ND(0.22)	ND(0.37)
VDMW-4	G4G080266-008	07/07/04	ND(0.046)	ND(0.061)	ND(0.16)	ND(0.17)	ND(0.26)

ND(xx) None detected (detection limit)

NS Not sampled

--- Not analyzed for this compound

\* Specific results are discussed in the Dioxin/Furan Sampling section of this report

**Table No. 6B**  
**Furan Concentrations in Ground-Water Wells\***  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Location	Lab ID	Date Sampled	Tetra (ng/l)	Penta (ng/l)	Hexa (ng/l)	Hepta (ng/l)	Octa (ng/l)
MW-25	G4G090356-003	07/08/04	ND(0.032)	ND(0.12)	ND(0.12)	ND(0.080)	ND(0.063)
MW-37	G4G090356-007	07/08/04	ND(0.025)	ND(0.090)	ND(0.12)	ND(0.072)	ND(0.029)
MW-38	G4G090356-005	07/08/04	ND(0.030)	ND(0.081)	ND(0.15)	ND(0.069)	ND(0.11)
MW-40	G4G090356-004	07/08/04	ND(0.058)	ND(0.11)	ND(0.15)	ND(0.097)	ND(0.051)
S-4I	G4G080266-001	07/07/04	ND(0.019)	ND(0.031)	ND(0.063)	ND(0.058)	ND(0.091)
S-7I	G4G080266-002	07/07/04	ND(0.16)	ND(0.062)	ND(0.050)	ND(0.067)	ND(0.45)
S-11I	G4G080266-004	07/07/04	ND(0.028)	ND(0.076)	ND(0.077)	ND(0.065)	ND(0.13)
S-14I	G4G090356-008	07/08/04	ND(0.024)	ND(0.081)	ND(0.11)	ND(0.16)	ND(0.040)
S-15I	G4G090356-001	07/08/04	ND(0.085)	ND(0.17)	ND(0.32)	ND(2.5)	ND(3.2)
S-9D	G4G080266-003	07/07/04	ND(0.020)	ND(0.073)	ND(0.086)	ND(0.075)	ND(0.12)
S-14D	NS	---	---	---	---	---	---
S-15D	G4G090356-002	07/08/04	ND(0.028)	ND(0.073)	ND(0.10)	ND(0.079)	ND(0.19)
VDMW-1	G4G080266-005	07/07/04	ND(0.022)	ND(0.032)	ND(0.071)	ND(0.15)	ND(0.33)
VDMW-2	G4G080266-006	07/07/04	ND(0.017)	ND(0.079)	ND(0.095)	ND(0.058)	ND(0.091)
VDMW-3	G4G080266-007	07/07/04	ND(0.020)	ND(0.057)	ND(0.11)	ND(0.22)	ND(0.12)
VDMW-4	G4G080266-008	07/07/04	ND(0.029)	ND(0.090)	ND(0.13)	ND(0.12)	ND(0.069)

ND(xx) None detected (detection limit)

NS Not sampled

--- Not analyzed for this compound

\* Specific results are discussed in the Dioxin/Furan Sampling section of this report

**Table No. 7A**  
**Quality Assurance/Quality Control Samples**  
**Pentachlorophenol, Creosote and Diesel**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**

Sample Designation	Date Sampled	Laboratory Work & Sample No.	Penta (mg/l)	Creosote (mg/l)	TPH -Diesel (mg/l)
BLANK SAMPLES					
Trip Blank	04/26/04	04-04-1427-3	ND(0.001)	ND(0.001)	ND(0.05)
FIELD DUPLICATE SAMPLES					
MW-38	07/29/04	04-07-1593-8	ND(0.001)	ND(0.001)	ND(0.05)
MW-38D	07/29/04	04-07-1593-16	ND(0.001)	ND(0.001)	ND(0.05)

--- Not analyzed for this compound

T-3A = Hidden field blank

EB-x = Equipment Blank

J Result is detected below the reporting limit or is an estimated concentration

D The sample data was reported from a diluted analysis

**Table No. 7B**  
**Quality Assurance/Quality Control Samples**  
**Dioxins and Furans**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**  
**Blank Samples Analyzed for Dioxins**

<b>Sample Location</b>	<b>Lab ID</b>	<b>Date Sampled</b>	<b>Tetra (ng/l)</b>	<b>Penta (ng/l)</b>	<b>Hexa (ng/l)</b>	<b>Hepta (ng/l)</b>	<b>Octa (ng/l)</b>
Trip Blank	G4D270225-004	04/26/04	ND(0.26)	ND(1.6)	ND(0.95)	ND(0.29)	ND(0.45)

continued

ND(xx) = None Detected (detection limit)

w = EMPC - Estimated Maximum Possible Concentration

s = Result detected is below the lowest conc. standard and above zero

v = Elevated detection limit due to chemical interference

**Table No. 7B (continued)**  
**Quality Assurance/Quality Control Samples**  
**Dioxins and Furans**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**  
**Blank Samples Analyzed for Furans**

<b>Sample Location</b>	<b>Lab ID</b>	<b>Date Sampled</b>	<b>Tetra (ng/l)</b>	<b>Penta (ng/l)</b>	<b>Hexa (ng/l)</b>	<b>Hepta (ng/l)</b>	<b>Octa (ng/l)</b>
Trip Blank	G4D270225-004	04/26/04	ND(0.86)	ND(0.31)	ND(0.66)	ND(0.73)	ND(1.1)

continued

ND(xx) = None Detected (detection limit)

w = EMPC - Estimated Maximum Possible Concentration

s = Result detected is below the lowest conc. standard and above zero

v = Elevated detection limit due to chemical interference

**Table No. 7B (continued)**  
**Quality Assurance/Quality Control Samples**  
**Dioxins and Furans**  
**SCE Visalia Pole Yard and Vicinity**  
**2nd Quarter, 2004**  
**Dioxin/Furan Samples and Their Duplicates**

Sample Location	Lab ID	Date Sampled	Dioxin Isomer		Furan Isomer		
			Hepta (ng/l)	Octa (ng/l)	Tetra (ng/l)	Hepta (ng/l)	Octa (ng/l)
MW-38	G4G090356-005	07/08/04	ND(0.058)	ND(0.17)	ND(0.030)	ND(0.069)	ND(0.11)
MW-38D*	G4G090356-006	07/08/04	ND(0.41)	ND(0.73)	ND(0.73)	ND(0.91)	ND(1.3)

ND(xx) None Detected (detection limit)

MW Monitoring Well

s = Result detected was below the lowest standard and above zero.

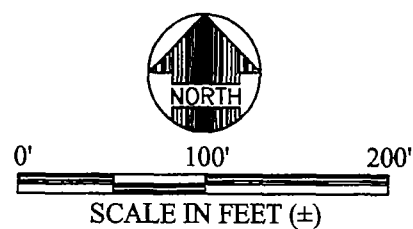
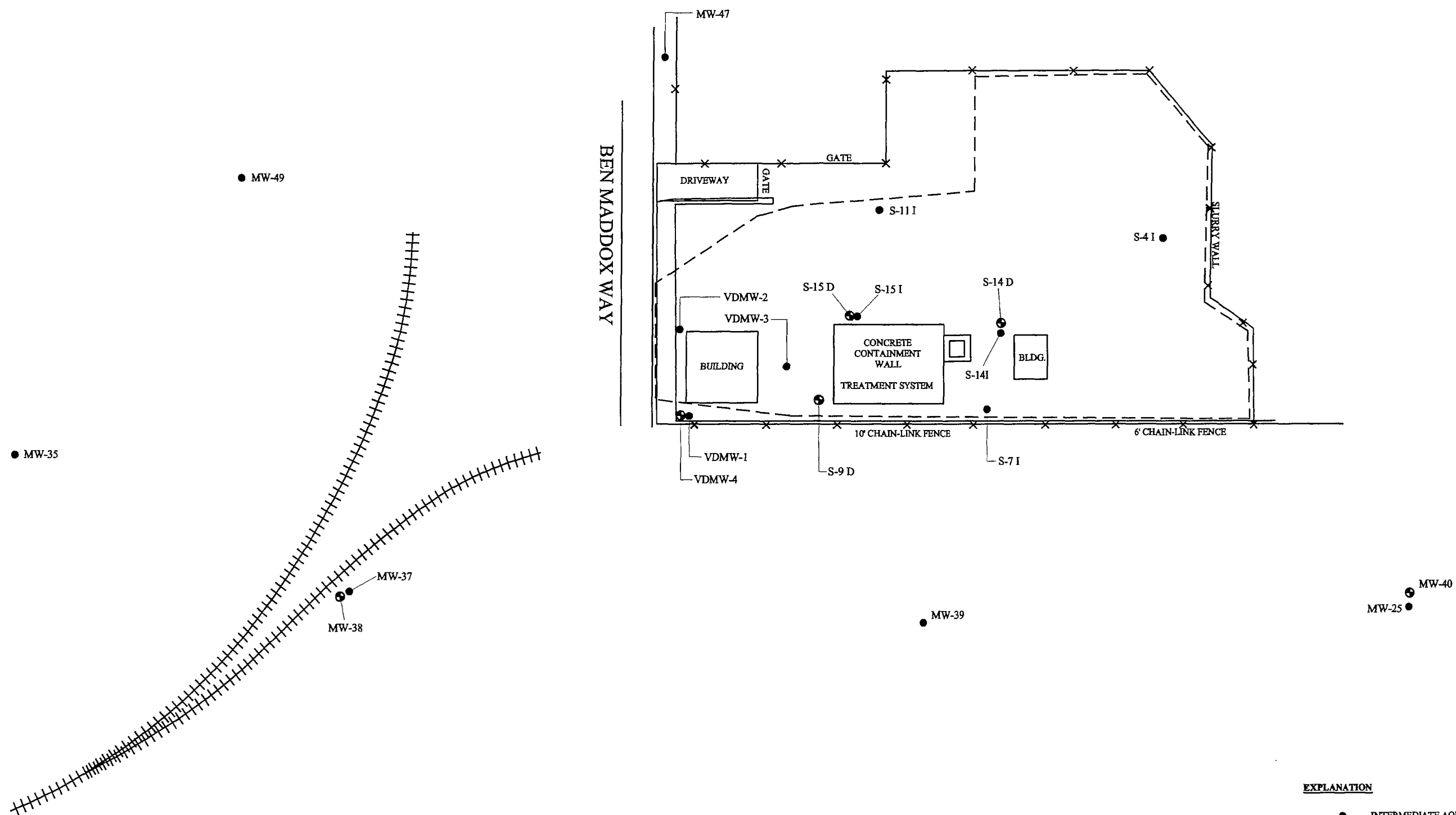
\* Field Duplicate

w = EMPC - Estimated Maximum Possible Concentration

J Detected below the respective Reporting Limit




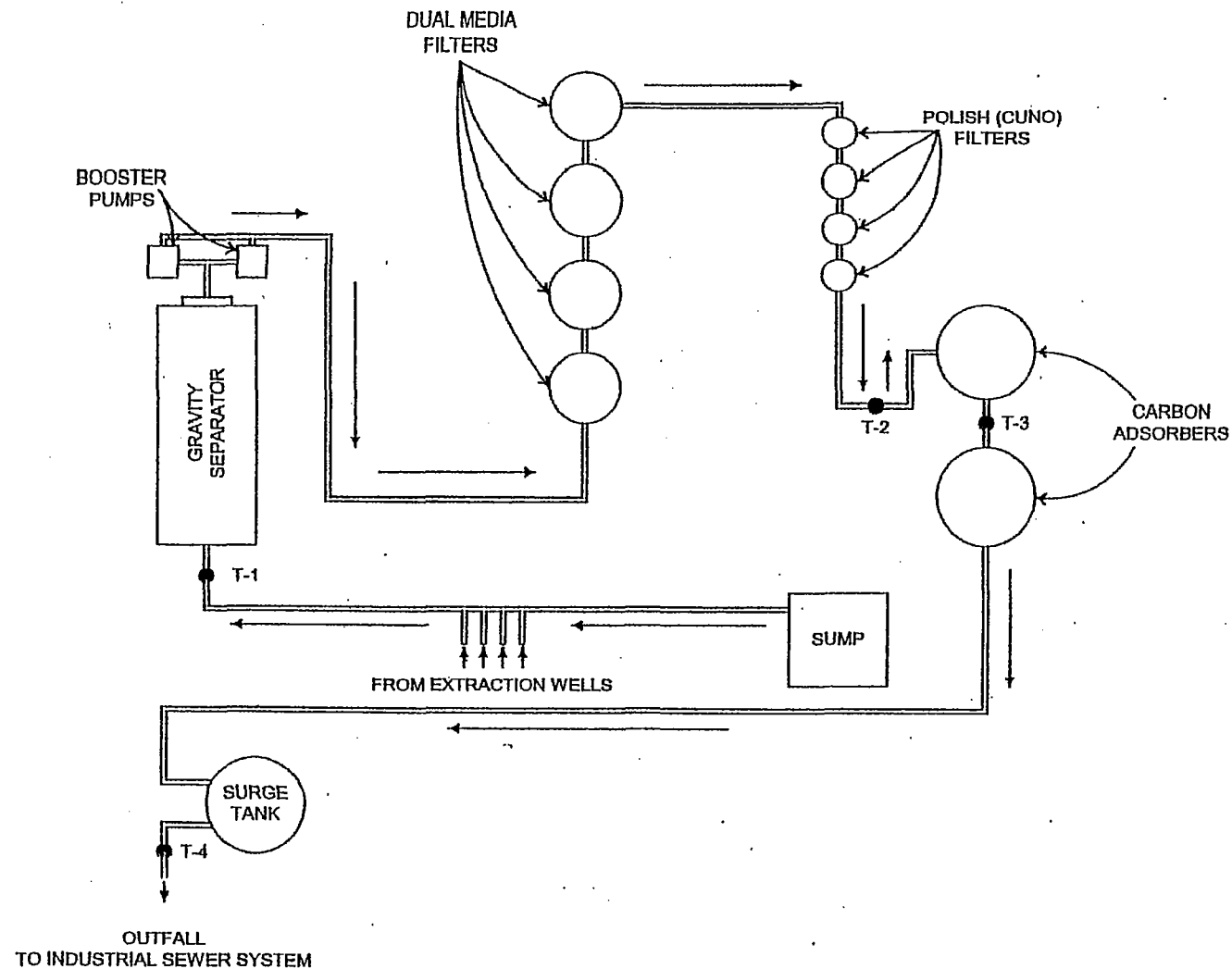
*Figures*



**EXPLANATION**

- INTERMEDIATE AQUIFER MONITORING WELLS
- ⊙ DEEP AQUIFER MONITORING WELLS
- ++++ RAILROAD TRACKS

<b>MONITORING WELL NETWORK</b>  SOUTHERN CALIFORNIA EDISON VISALIA POLE YARD AND VICINITY VISALIA, CALIFORNIA	Scale:	Date:	 <b>Krazan</b> ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SPECIALISTS <i>Ten Offices Serving the Western United States</i>
	AS SHOWN	9/04	
	Drawn by:	Approved by:	
	D. B.	J. R. N.	
	Project No.	Figure No.	
	014-01011	1	



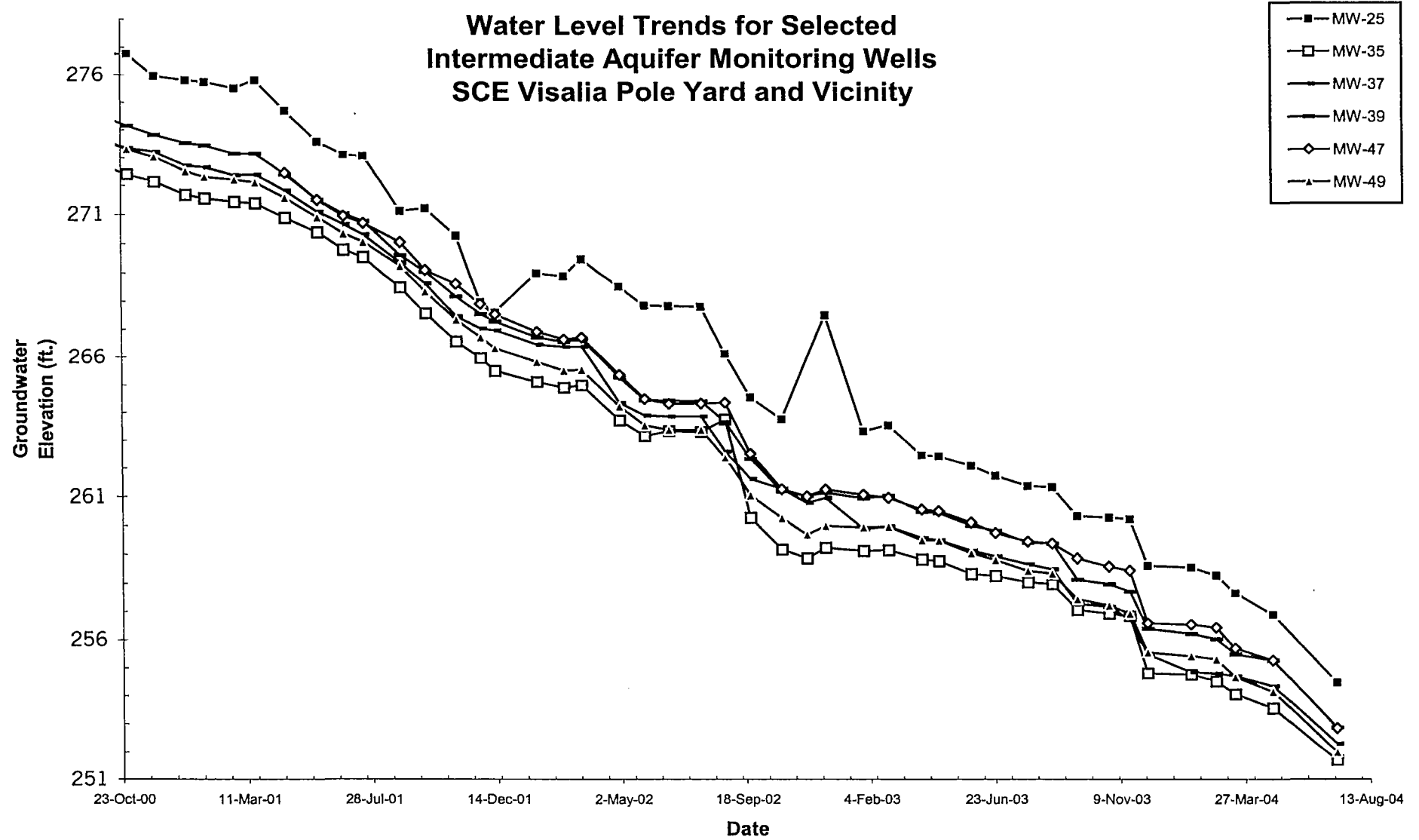
SCE WATER TREATMENT PLANT  
FLOW DIAGRAM AND SAMPLE POINT LOCATIONS

SOUTHERN CALIFORNIA EDISON  
VISALIA POLE YARD AND VICINITY, VISALIA, CALIFORNIA

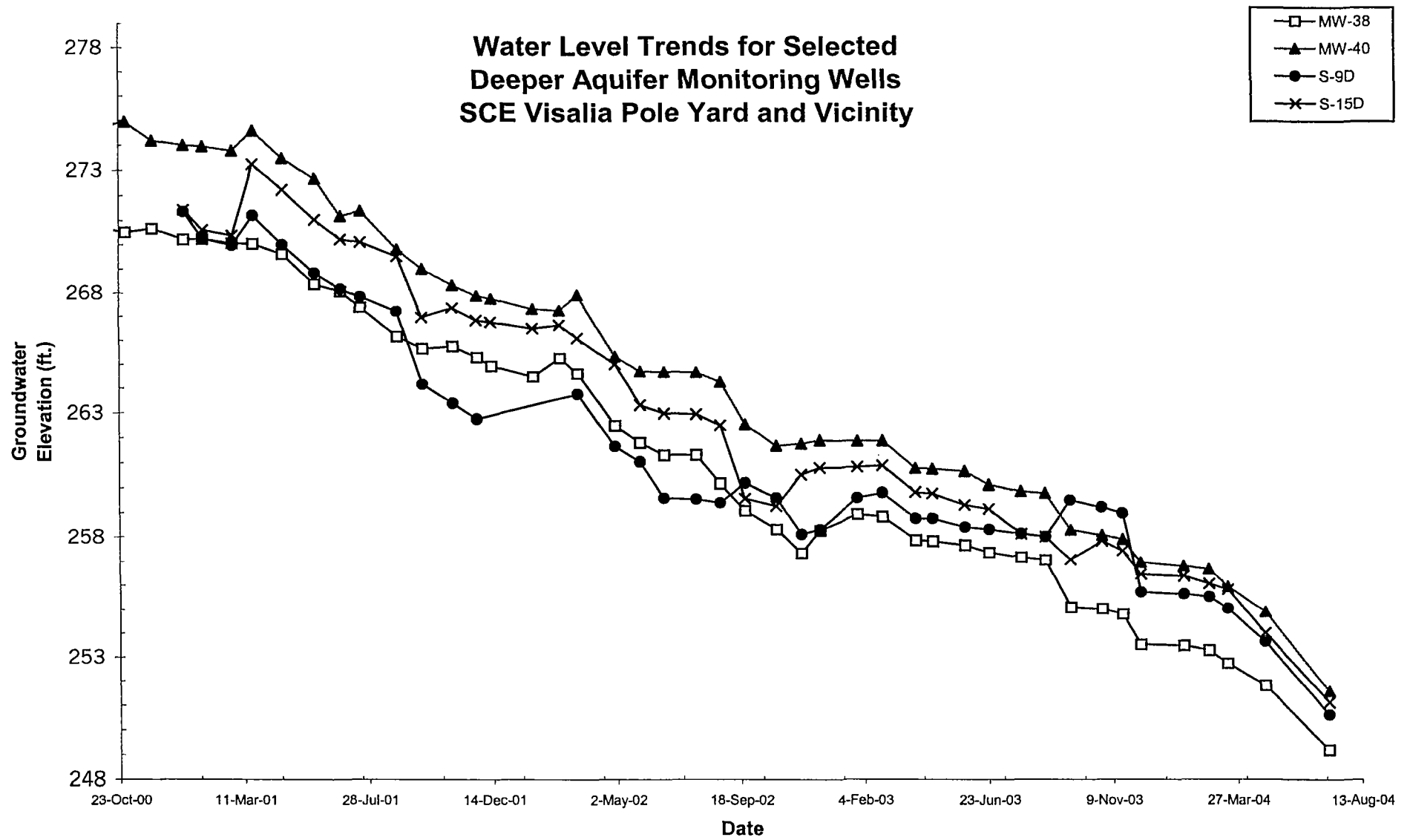
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AS SHOWN  
Drawn by:  
J.G.  
Project No.  
014-01011

Date:  
9/01  
Approved by:  
J.R.N.  
Figure No.  
2

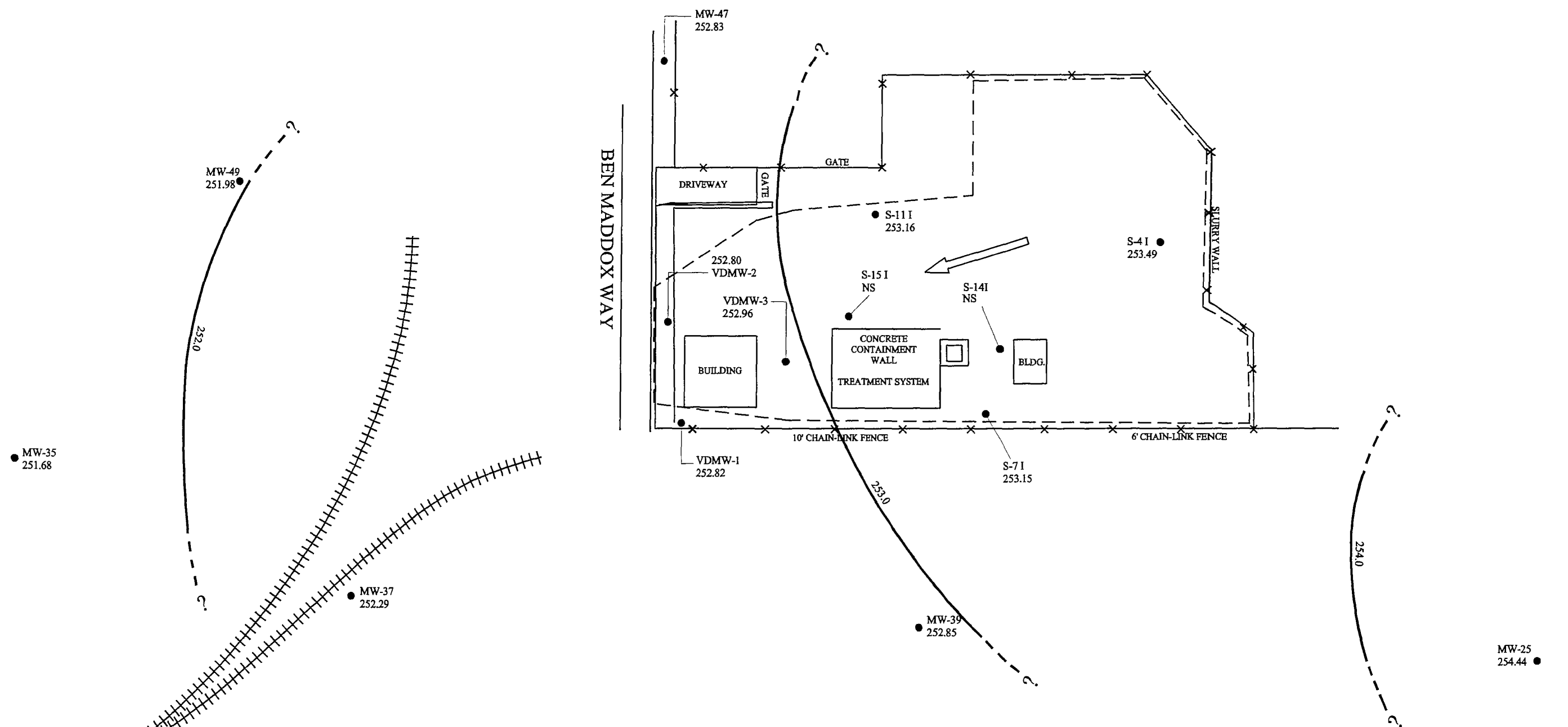
 **Krazan**  
SITE DEVELOPMENT ENGINEERS  
Offices Serving the Western United States



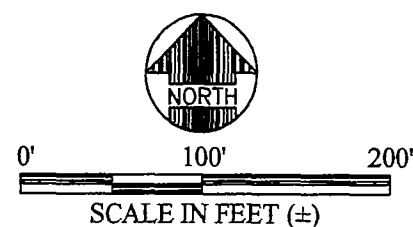
**Figure 3**



**Figure 4**

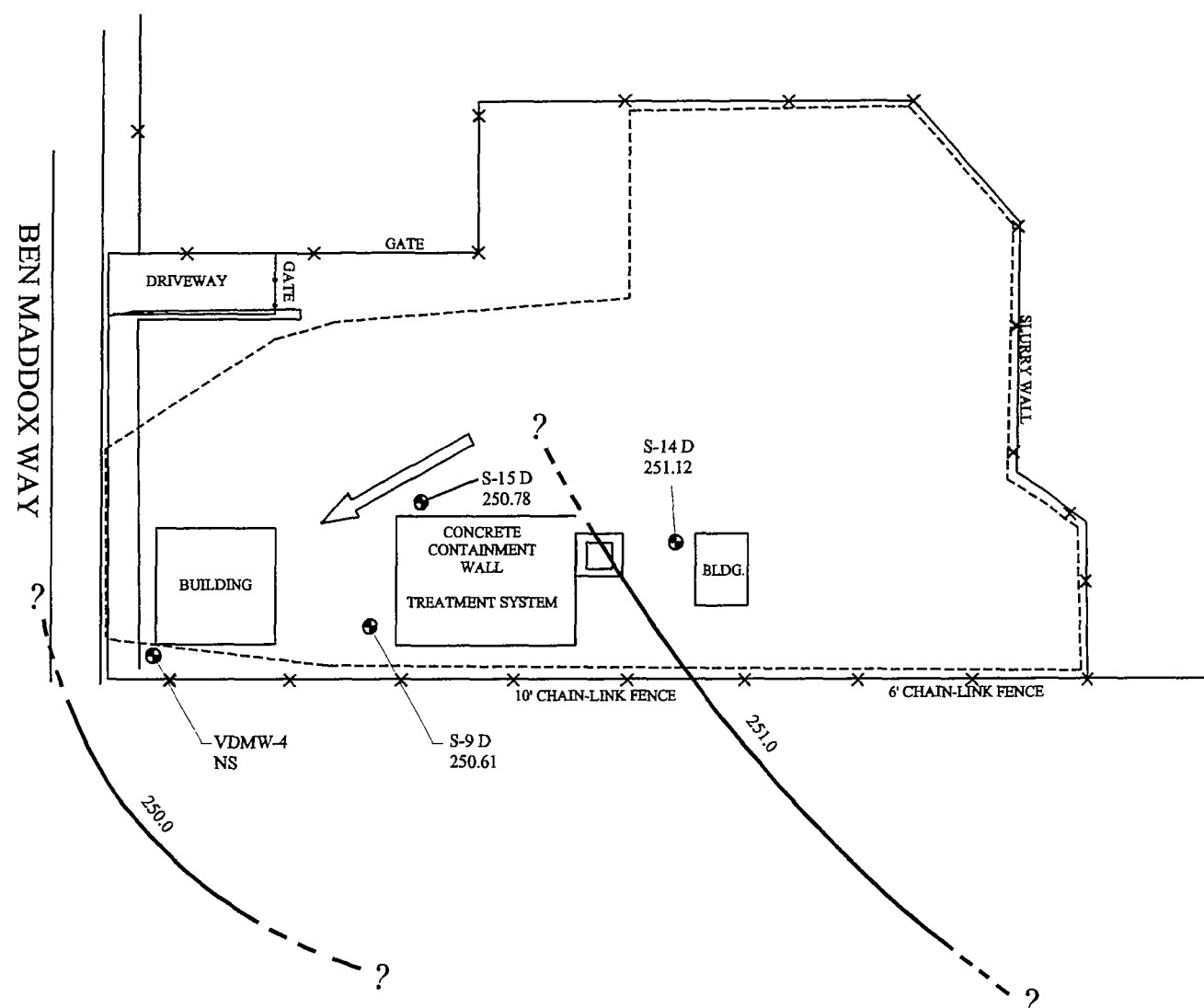
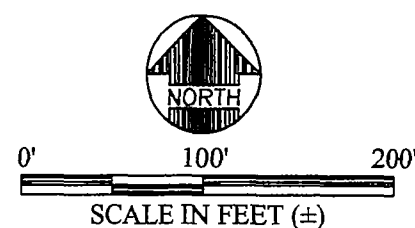
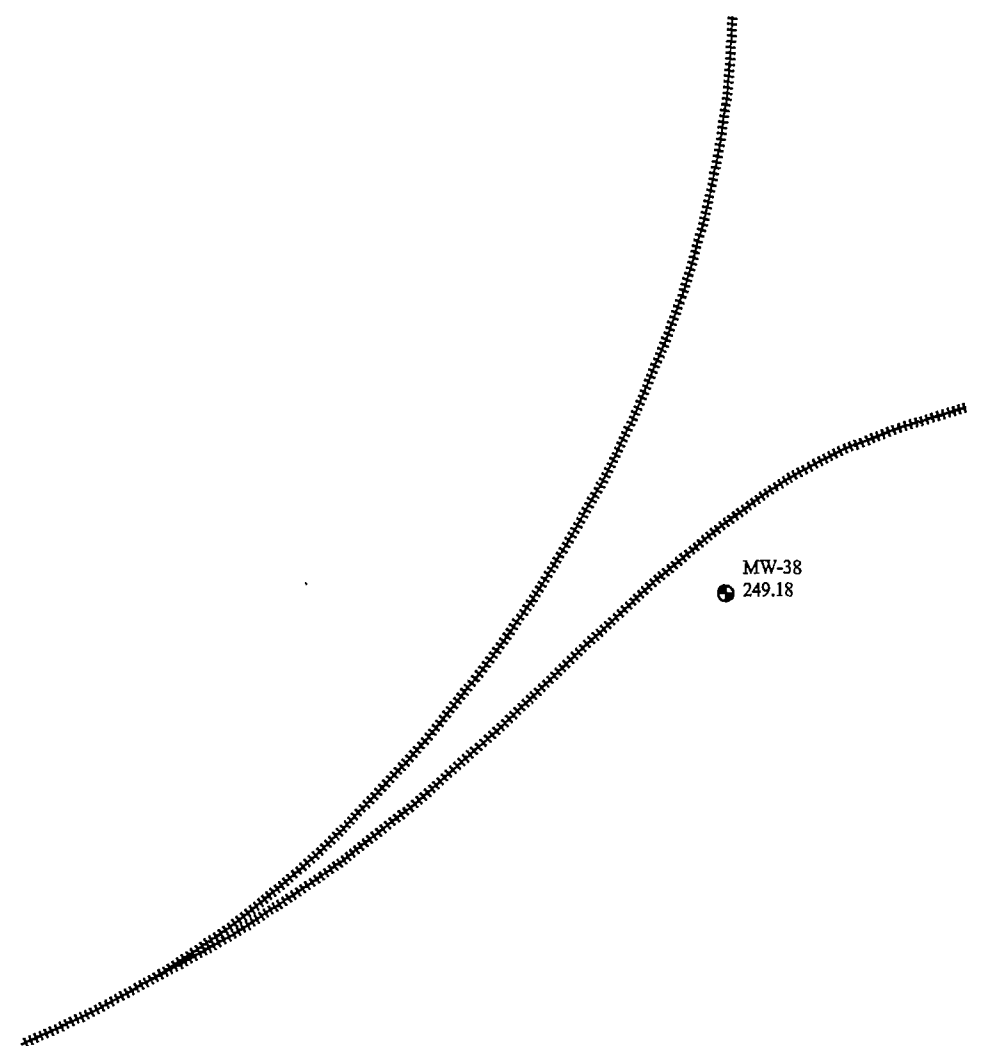


- EXPLANATION**
- MW-39 252.85 ● INTERMEDIATE AQUIFER MONITORING WELL LOCATION AND POTENTIOMETRIC SURFACE ELEVATION
  - NS NOT SOUNDED
  - ++++ RAILROAD TRACKS
  - ? - - - GROUNDWATER ELEVATION CONTOUR (DOTTED WHERE QUESTIONABLE) (DASHED WHERE APPROXIMATE)
  - ← APPROXIMATE FLOW DIRECTION



<b>INTERMEDIATE AQUIFER POTENTIOMETRIC SURFACE (JULY 6, 2004)</b> SOUTHERN CALIFORNIA EDISON VISALIA POLE YARD AND VICINITY VISALIA, CALIFORNIA		Scale: AS SHOWN	Date: 9/04
		Drawn by: D. B.	Approved by: J. R. N.
Project No. 014-01011		Figure No. 5	

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MW-40  
251.57

# EXPLANATION

- S-9D 250.61 ● DEEP AQUIFER MONITORING WELL LOCATION AND POTENTIOMETRIC SURFACE ELEVATION
- NS NOT SOUNDED
- RAILROAD TRACKS
- ? - - - GROUNDWATER ELEVATION CONTOUR (DOTTED WHERE QUESTIONABLE) (DASHED WHERE APPROXIMATE)
- ← APPROXIMATE FLOW DIRECTION

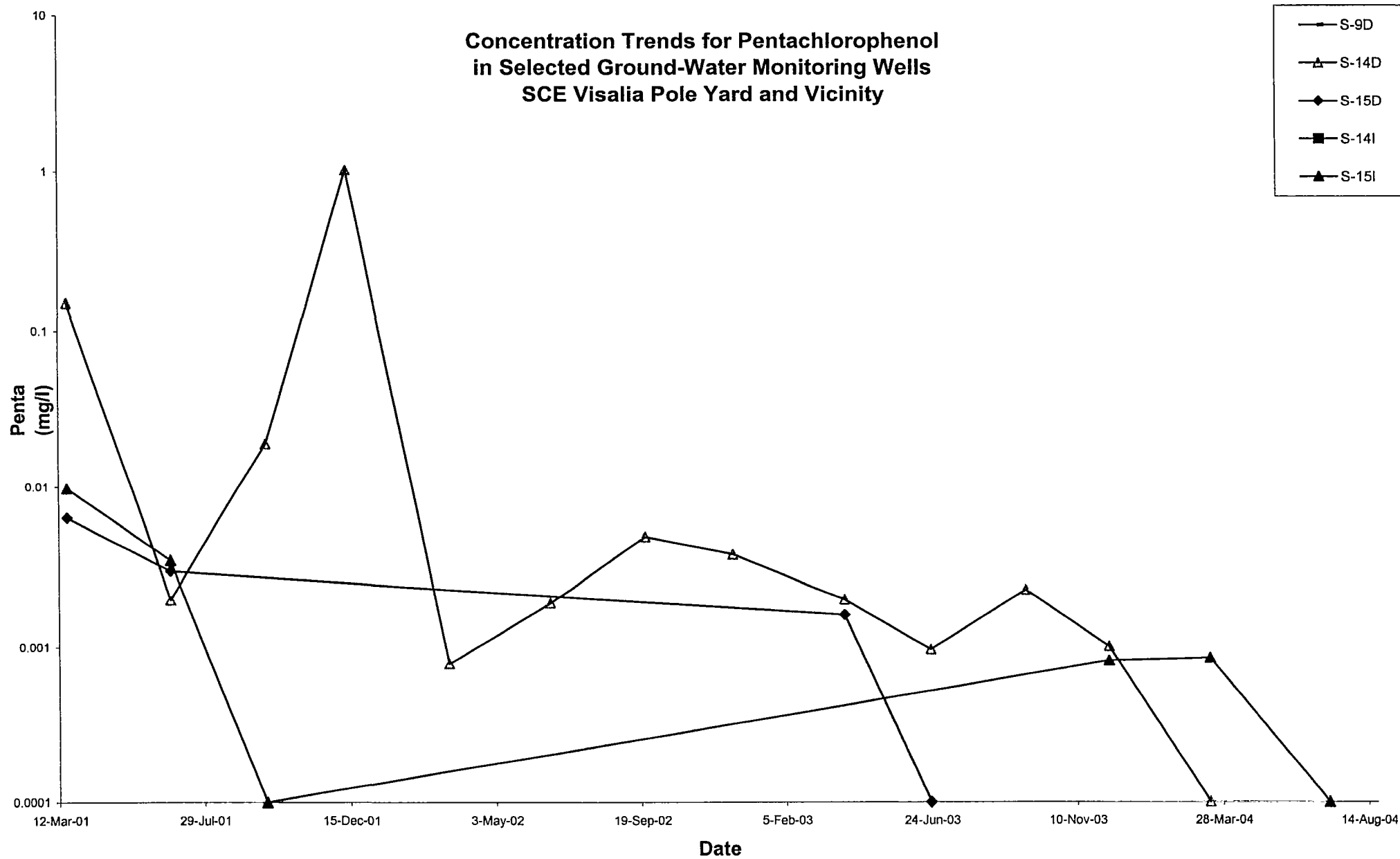
## DEEP AQUIFER POTENTIOMETRIC SURFACE (JULY 6, 2004)

SOUTHERN CALIFORNIA EDISON  
VISALIA POLE YARD AND VICINITY  
VISALIA, CALIFORNIA

Scale:  
AS SHOWN  
Drawn by:  
D. B.  
Project No.  
014-01011

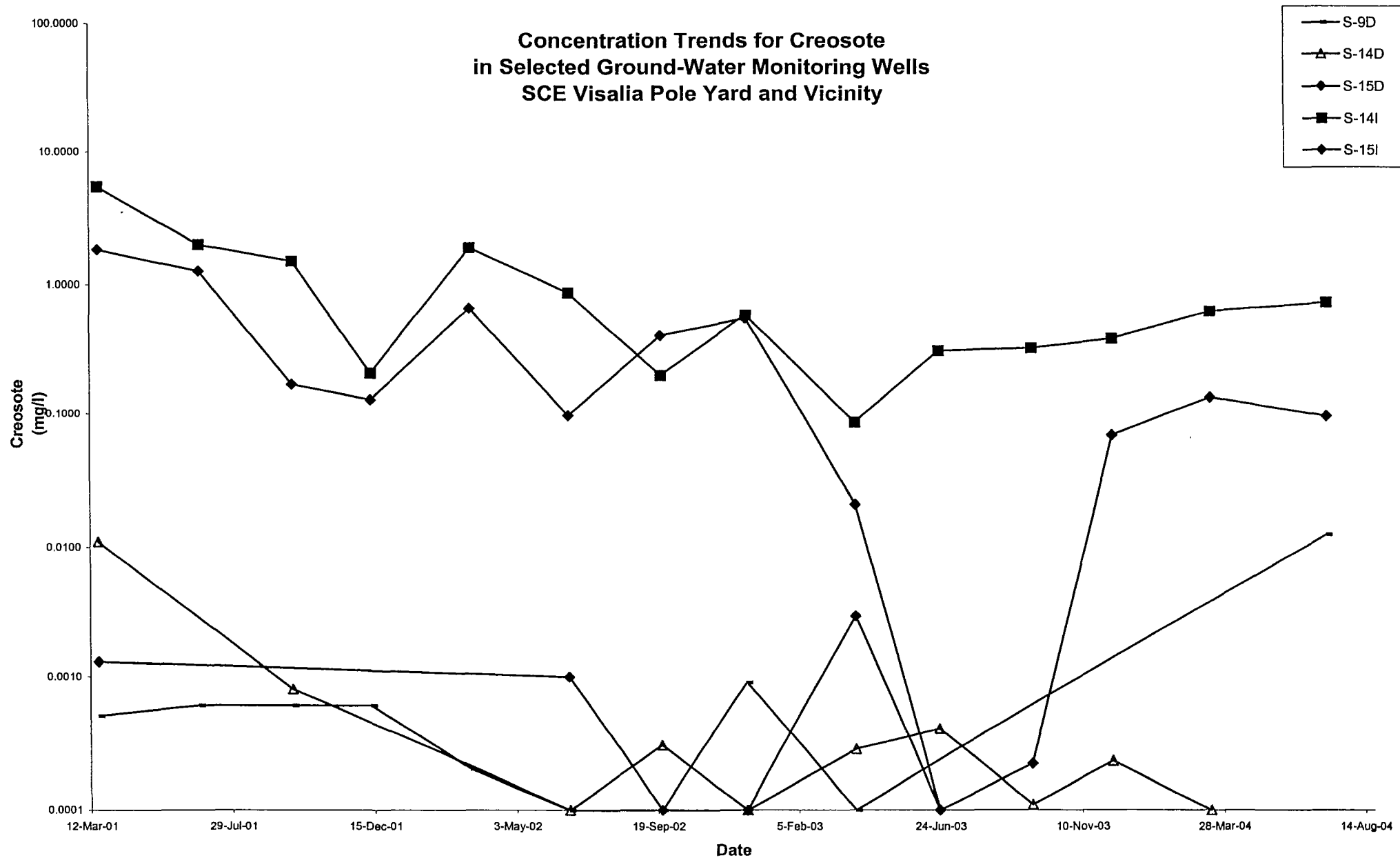
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9/04  
Approved by:  
J. R. N.  
Figure No.  
6

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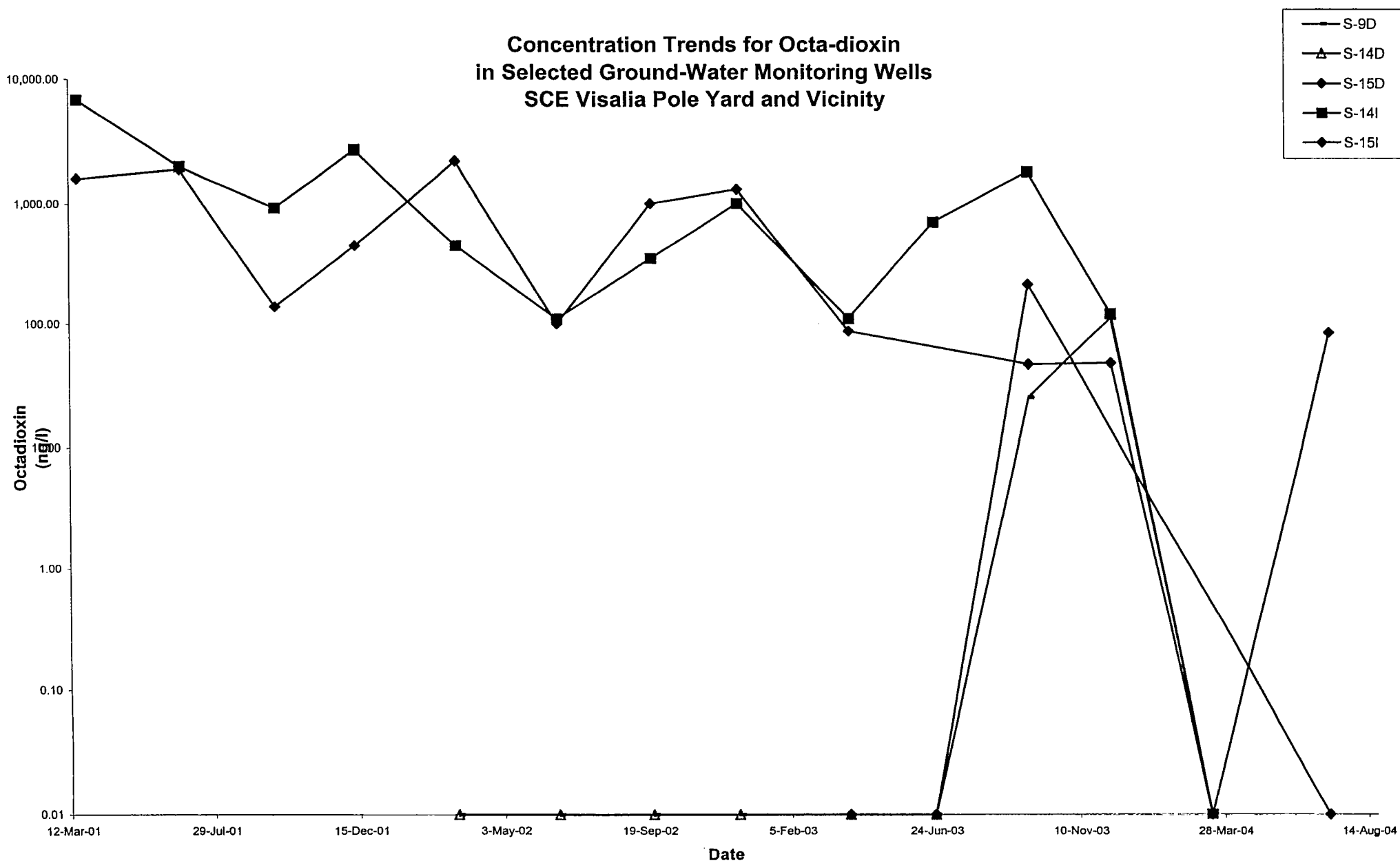


**Figure 7**





**Figure 8**



**Figure 9**